UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,178	11/26/2003	Hyo-Hak Nam	8071-50 (OPP 030570 US)	5722

22150 7590 01/17/2007
F. CHAU & ASSOCIATES, LLC
130 WOODBURY ROAD
WOODBURY, NY 11797

EXAMINER	
NGUYEN, THANH NHAN P	
ART UNIT	PAPER NUMBER
2871	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/723,178	NAME ET AL	
	Examiner	Art Unit	
	(Nancy) Thanh-Nhan P. Nguyen	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 July 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40* is/are pending in the application.

4a) Of the above claim(s) *1-16,21 and 34-36* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *17-20,22-33 and 37-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Applicant's election with traverse of Species II, sub-species A, corresponding to figs. 16 and 14A (claims 17-20, 22-33 and 37-40) is acknowledged.

Applicant's arguments regarding the restriction requirement have been considered. However, the traversal was on the grounds is not found persuasive since different Species and/or sub-species requires different search.

Therefore, the requirement is deemed proper and is considered to be final.

Further, to be clear, the set of claims to be examined in this Office Action is from the original claims (not amended) dated 11/26/2003.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 17-20, 22, 30, 31 and 37-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Tashiro et al (US 2002/0196393).

Tashiro et al discloses (figs. 43a – 45) a liquid crystal display comprising:

Claim 17:

- a first panel (16) including a conductive member (78) including a light transmitting portion

- a second panel (4) spaced apart from the first panel by a predetermined gap and including a black matrix (108)
- a sealant (6) disposed between the first panel and the second panel and overlapping the black matrix, the light transmitting portion disposed at the overlapping
- a liquid crystal layer (22) filled in the gap between the first panel and the second panel, and enclosed by the sealant

Claim 18:

- wherein the light transmitting portion includes at least one transparent area and at least one opaque area

Claim 19:

- wherein the at least transparent area is an opening type

Claim 20:

- wherein the at least transparent area includes a plurality of slits or a lattice pattern

Claim 22:

- wherein the at least transparent area occupies about 20% or more of an area occupied by the light transmitting portion

Regarding claims 30 and 31, Tashiro et al discloses (figs. 43a & 47a) a method of manufacturing a liquid crystal display, the method comprising:

- forming a conductive member (78) including a light transmissive portion on a first substrate (16)

- forming a black matrix (108) on a second substrate (4)
- forming a sealant (6) overlapping the light transmissive portion
- forming a liquid crystal layer (22) enclosed by the sealant
- adhering the second substrate to the first substrate using the sealant
- hardening the sealant to combine the first substrate and the second substrate
- wherein the sealant overlaps the black matrix in part

Regarding claims 37-40, Tashiro et al discloses (figs. 43a-43b) a liquid crystal display comprising:

- a first panel (16) including a conductive layer (78)
- a second panel (4) spaced apart from the first panel by a predetermined gap and including a black matrix (108)
- a sealant (6) disposed between the first panel and the second panel and overlapping the black matrix
- a liquid crystal layer (22) filled in the gap between the first panel and the second panel and enclosed by the sealant
- wherein the conductive layer has a plurality of slits located at the overlapping and elongated along a signal transmission of the conductive layer
- wherein the conductive layer extends along the signal transmission
- wherein the slits form at least two rows along the signal transmission

wherein width of the slits is equal to or larger than distance between the slits

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tashiro et al in view of Murade et al (US 6,859,247).

Regarding claim 23, even though Tashiro et al does not disclose wherein the first panel further comprises a plurality of pixel electrodes, element "pixel electrodes" has to be in any liquid crystal display device to transmit a voltage signal, and therefore does not patentably distinguish the invention.

Tashiro et al lacks disclosure of a plurality of storage electrode lines overlapping the pixel electrodes, and the conductive member comprises a storage electrode connection connected to the storage electrode lines and overlapping the sealant and the black matrix, though Tashiro et al discloses the conductive member overlapping the sealant and the black matrix as in claim 17 rejection above.

Murade et al discloses (fig. 3) a plurality of storage electrode lines (3b) overlapping the pixel electrodes (9a) for the benefit of achieving additional storage capacitance; further, it would have been obvious to one ordinary skill in the art to form the conductive member comprises a storage electrode connection connected to the storage electrodes lines (wherein a conductive member is such as a portion of wire

connected the storage electrode line to common voltage supply); furthermore, when viewing on plan view (such as fig. 3), the conductive member will be overlapping with the sealant and the black matrix (since the sealant formed around the active display area, and the black matrix overlapped the sealant); and therefore, it does not patentably distinguish the invention.

Claims 24-27are rejected similarly as claim 23.

Claims 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tashiro et al in view of Murade et al and Moon et al (US 2001/0048502).

Claim 28 is rejected similarly as claim 23, except for a data driver, a gate driver, a data PCB and a gate PCB located outside of the sealant, (Moon et al: fig. 1).

Claim 29 is rejected similarly as claim 23, except for a common electrode extended toward a peripheral region or located outside of the sealant, (Moon et al: fig. 2).

Claims 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tashiro et al.

Regarding claims 32 and 33, Tashiro et al discloses the step of hardening comprising a reflector (152) located on the first substrate (16), [fig. 19]; directing light from the second substrate to the sealant to be hardened; wherein the light is obliquely directed to the first and the second substrates. However, Tashiro lacks disclosure of the reflector is located opposite the second substrate with respected to the first

substrate. It has been determined that the arrangement of parts is within the ordinary level of skill, [MPEP 2144.04 VI (C)]. Further, disposing the reflector on the first substrate is really for the purpose of the light reflected to the sealant (6) to be hardened. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to place the reflector located opposite the second substrate with respected to the first substrate for the benefit of having light reflected to the sealant to be hardened.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 2005/0151920.
US 6,330,044.
US 6,099,672.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to (Nancy) Thanh-Nhan P. Nguyen whose telephone number is 571-272-1673. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

(Nancy) Thanh-Nhan P Nguyen
Examiner
Art Unit 2871

TN

David Nelms
Supervisory Patent Examiner
Technology Center 2800